No. 16-1454

In The Supreme Court of the United States

STATE OF OHIO, ET AL.,

Petitioners,

v.

AMERICAN EXPRESS COMPANY, ET AL.,

Respondents.

On Writ Of Certiorari To The United States Court Of Appeals For The Second Circuit

BRIEF FOR *AMICI CURIAE* J. GREGORY SIDAK AND ROBERT D. WILLIG IN SUPPORT OF RESPONDENTS

ROBERT M. LANGER*
AARON S. BAYER
BENJAMIN H. DIESSEL
JENNIFER A. MCTIERNAN
WIGGIN AND DANA LLP
20 Church Street
Hartford, CT 06103
(860) 297-3700
rlanger@wiggin.com
**Counsel of Record*

Counsel for Amici Curiae

January 23, 2018

COCKLE LEGAL BRIEFS (800) 225-6964
WWW.COCKLELEGALBRIEFS.COM

TABLE OF CONTENTS

	Page
TABLE OF AUTHORITIES	ii
INTEREST OF *AMICI CURIAE*	1
INTRODUCTION	2
SUMMARY OF THE ARGUMENT	4
ARGUMENT	6
I. The Market for Credit-Card Networks Is Two-Sided	6
II. The Relevant Market Includes Both Sides of the Credit-Card Platform	14
III. Petitioners Needed But Failed to Prove That NDPs Have an Anticompetitive Effect Across the Totality of the Two-Sided Credit-Card Platform	21
IV. Some *Amici* Supporting Petitioners Wrongly Condemn the Second Circuit's Assignment of Burden	27
CONCLUSION	32

TABLE OF AUTHORITIES

Page

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Bhan v. NME Hosps., 929 F.2d 1404 (9th Cir. 1991) 28

Broad. Music, Inc. v. Columbia Broad. Sys., Inc., 441 U.S. 1 (1979) 27

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TABLE OF AUTHORITIES – Continued

Page

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Page

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TABLE OF AUTHORITIES – Continued

Page

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TABLE OF AUTHORITIES – Continued

Page

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INTERESTS OF *AMICI CURIAE*

The *amici* are scholars on antitrust law and the economics of industrial organization whose writings the federal courts have approvingly cited on multiple occasions.[1] The *amici* filed a brief in the Second Circuit supporting American Express.[2] Portions of the Second Circuit's opinion track the arguments contained in that brief. The *amici* subsequently published an article based on their brief and their analysis of the Second Circuit's decision.[3]

J. Gregory Sidak is the founder and chairman of Criterion Economics, L.L.C. He has held the Ronald Coase Professorship of Law and Economics at Tilburg University in The Netherlands, the F.K. Weyerhaeuser Chair in Law and Economics at the American Enterprise

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[1] Pursuant to Rule 37(6), the *amici* certify that no counsel for a party authored this brief in whole or in part, and no such counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than the *amici*, or their counsel, made a monetary contribution to the preparation or submission of this brief. The parties have given written consents to the filing of briefs *amicus curiae*. The *amici* file this brief solely as individuals and not on behalf of any institutions with which they are affiliated.

[2] Brief for *Amici Curiae* J. Gregory Sidak, Robert D. Willig, David J. Teece, and Keith N. Hylton Scholars and Experts in Antitrust Economics in Support of Defendants-Appellants and Supporting Reversal, *United States v. Am. Express Co.*, 838 F.3d 179 (2d Cir. 2016) (No. 15-1672), 2015 WL 4873717.

[3] J. Gregory Sidak & Robert D. Willig, *Two-Sided Market Definition and Competitive Effects for Credit Cards After* United States v. American Express, 1 Criterion J. on Innovation 1301 (2016), *available at* https://www.criterioninnovation.com/articles/two-sided-markets-for-credit-cards/.

Institute for Public Policy Research, and academic positions at Yale University and Georgetown University. He served as deputy general counsel of the Federal Communications Commission, senior counsel and economist with the Council of Economic Advisers, and Judge Richard Posner's first clerk. He is a founding co-editor of the *Journal of Competition Law & Economics*, published quarterly by the Oxford University Press since 2005.

Robert D. Willig is Professor Emeritus of Economics and Public Affairs at the Woodrow Wilson School and at the economics department of Princeton University. He served in the Antitrust Division of the U.S. Department of Justice as Deputy Assistant Attorney General for economics. He is a co-editor of the *Handbook of Industrial Organization* and a fellow of the Econometric Society, and he has served on the editorial boards of the *American Economic Review*, the *Journal of Industrial Economics*, and the MIT Press series on regulation. He is a founder of and a senior consultant to Compass Lexecon L.L.C.

INTRODUCTION

In *United States v. American Express Company*, the United States and seventeen states brought antitrust claims against credit-card networks, including Visa, MasterCard, and American Express. *United States v. Am. Express Co.* (*Amex I*), 88 F. Supp. 3d 143, 149 (E.D.N.Y. 2015), *rev'd sub nom. United States v. Am.*

Express Co. (*Amex II*), 838 F.3d 179 (2d Cir. 2016), *cert. granted sub nom. Ohio v. Am. Express Co.* (*Amex III*), 2017 WL 2444673 (U.S. Oct. 16, 2017) (Mem.). Plaintiffs challenged the credit-card networks' use of "Non-Discrimination Provisions" (NDPs) that prohibit merchants from "steering" cardholders at the point of sale to a less expensive or otherwise merchant-preferred form of payment. *Amex I*, 88 F. Supp. 3d at 149-50. Plaintiffs alleged that the NDPs constituted an unreasonable restraint of trade in violation of section 1 of the Sherman Act, because the NDPs supposedly suppressed competition among rival credit-card networks by removing their incentives to reduce merchant discounts. *Id.* Visa and MasterCard each entered into a consent decree with Plaintiffs, pledging to eliminate NDPs from their agreements with merchants, but American Express proceeded to trial. *Id.* at 149.

The District Court found that American Express's use of NDPs violated section 1, and it permanently enjoined American Express from enforcing the NDPs. *Amex II*, 838 F.3d at 184. The Second Circuit reversed with instructions that judgment be entered for American Express. *Id.* at 207. The Second Circuit found that the District Court's "erroneous market definition" led to the incorrect conclusion that the NDPs had an anticompetitive effect on the relevant market. *Id.* at 204.

The United States and six of the seventeen plaintiff states are no longer parties. Petitioners consist of the eleven remaining plaintiff states. For the reasons explained below, this Court should reject Petitioners'

arguments, affirm the Second Circuit's decision, and endorse its reasoning.

SUMMARY OF THE ARGUMENT

Under the rule of reason, did Petitioners' purported showing that American Express's anti-steering provisions stifled just one of several forms of competition on the merchant side of the credit-card platform, without consideration of enhanced competition on the consumer side of the two-sided market, suffice to prove anticompetitive effects in a valid relevant market and thereby shift to American Express the burden of establishing any procompetitive benefits from the provisions? Economic analysis confirms that the Second Circuit correctly answered, "No." The principal issue before this Court – the one that separates the Second Circuit and District Court decisions – is whether challenged conduct in a two-sided market can properly be assessed ignoring its impacts on both sides of the market and ignoring the interactions of those impacts on one another.

NDPs enable networks to compete vigorously for cardholders with rewards and benefits that can be funded only with merchant fees. Although NDPs might stifle one form of competitive pressure on the networks due to their repression of steering, they stimulate more competitive pressure on the networks to persuade merchants to accept their cards with the balance of their fees, services, and the customers they attract. The

NDPs allow two-sided market participants to compete for both merchant acceptance and cardholders with *two-sided product differentiation* – higher or lower merchant fees, corresponding higher or lower cardholder benefits, and corresponding bigger-spending or smaller-spending total customers for the merchants. Without NDPs, individual merchants would be motivated to steer customers to the network with the lowest merchant fees, thereby disabling the two-sided product differentiation.

In the two-sided market, a credit-card network should be permitted under the antitrust laws to compete with a strategy that needs to restrict a merchant that accepts the card from discriminating against its use at the point of sale. To conclude otherwise, as Petitioners urge, would suppress product differentiation in this two-sided market. It would compel a would-be differentiated competitor to mimic the strategies of its rivals. And, by making rival credit-card networks more homogeneous in their service offerings, Petitioners' proposed interpretation of antitrust law would make the market for credit-card networks more vulnerable to collusion. Those perverse results would harm consumers in the name of advancing Petitioners' claim that they are supposedly protecting consumers.

This Court should affirm the Second Circuit's decision and endorse its reasoning. Doing so would recognize the economic and commercial realities of competition in the two-sided market for credit-card networks and better serve this Court's rationale for

having the rule of reason than would this Court's adoption of Petitioners' incorrect reasoning.

ARGUMENT

I. The Market for Credit-Card Networks Is Two-Sided.

A two-sided market involves two distinct groups of consumers. Network externalities exist between those two groups: the value that consumers on one side of the market derive from the consumption of the good or service increases with the number of consumers on the other side of the market.[4] To prosper in a two-sided market, a firm needs to compete against alternative platforms by appealing to both groups of consumers with optimally balanced prices and benefits for each side of the market, such that the firm achieves an optimal *aggregate* price posture.[5]

Like shopping malls, executive recruiting firms, computer operating systems, dating services, computer games, and social networking websites, credit-card networks exemplify two-sided platforms. A credit-card network facilitates the interaction between cardholders and merchants by performing various functions,

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[4] *See* Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-Sided Markets*, 1 J. Eur. Econ. Ass'n 990, 990 (2003), *available at* https://www.jstor.org/stable/40005175?seq=1#.

[5] *Id.* ("Platform owners or sponsors in these industries must address the celebrated 'chicken-and-egg problem' and be careful to 'get both sides on board.'").

such as issuing credit cards, extending credit to cardholders, collecting amounts due, and paying retailers for their sales using the network's cards. The success of the credit-card network depends upon both cardholders and merchants mutually reinforcing widespread acceptance, based on both groups' benefits from their own utilization and acceptance of the credit card.

To maximize profit, a credit-card network must carefully allocate the aggregate price that it charges between cardholders and merchants. The aggregate price in a two-sided market equals the sum of the prices that each side of the market pays. By allocating a relatively small, or even negative, portion of the aggregate price to the cardholder and a relatively large portion to the merchant, a credit-card network encourages cardholders to use credit cards that belong to its network, which in turn increases a merchant's incentive to accept that network's credit cards. The merchants' widespread acceptance of the credit card in turn increases the credit card's appeal for cardholders. However, if the price that the credit-card network charges to merchants is too high, fewer merchants will accept the network's credit cards, and lower merchant acceptance of that network's cards will in turn decrease the appeal to cardholders of using those cards. Thus, network effects magnify the effect of a price change on one side of the two-sided market.[6] In other words, a credit-card network's allocation of the aggregate price between cardholders and merchants affects

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[6] *See* Jean-Charles Rochet & Jean Tirole, *Two-Sided Markets: A Progress Report*, 37 RAND J. Econ. 645, 648 (2006).

the total volume of transactions on that network (which is to say the network's output) and therefore the network's commercial success.

Competition among credit-card networks for the business of the cardholders and the merchants plays out on several dimensions: appeal of the cards and its services and rewards to potential cardholders; fees and services and the commerce of the cardholders that acceptance brings to the merchants; and the effectiveness of the network externalities that link merchants and cardholders that is driven by finding the right mixture of the terms offered to cardholders and merchants. A unilateral decision by a credit-card network to adopt NDPs does not suppress these dimensions of competition in their total effect.

Imagine that a particular brand of credit-card network offers cardholders expensive benefits and terms that are particularly appealing to big spenders. These spenders are particularly desirable retail customers, so some merchants are highly motivated to accept this brand of card so as to attract the business of these highly valued customers. Relatively high merchant fees are needed to fund the expensive cardholder benefits, and those cardholder benefits are worth it to many, but not all, retailers due to the commercially beneficial customers that acceptance of the card attracts. Nothing about this market scenario is counterproductive to consumer welfare, and of course other rival payment systems will offer different mixtures of prices and terms to the cardholders and merchants. The rival payment systems compete with each other

for merchant acceptance and for cardholders, and the dimensions of their competition include both cardholder benefits and merchant fees and services.

Now consider how this worthwhile variety of competitive systems' designs and features would be destroyed by prohibition of anti-steering contractual provisions. The high-rewards, big-spender cardholders would be attracted to a retailer that accepts their high-rewards card; but then, at the point of sale, the cardholders would be steered to use another payment system that is less expensive for the merchant. As a consequence of this market-wide, individually rational conduct, the funding for the high-rewards cards would disappear, either because steering would undermine use of the cards or because the network operator would need to reduce the merchant fees to stem the merchant steering.

The anti-steering provisions can enhance overall competition between credit-card networks for both cardholders and merchants by permitting and motivating networks to compete through product innovation that leads to two-sided product differentiation – rather than by constraining credit-card networks to compete solely through their merchant fees, as Petitioners urge. By permitting competition over this multidimensional space, anti-steering provisions can benefit both cardholders and merchants. Prohibiting them, in contrast, would suppress product innovation and beneficial avenues of competition and thus destroy any market equilibrium that included product differentiation. However, the District Court could have

discerned this overall effect of the anti-steering provisions only if it had first properly characterized the relevant market to include both sides of the two-sided market for credit-card networks. Conclusions drawn from a one-sided analysis would rely on a false economic characterization and thus be systematically wrong.

Economists have produced an extensive literature on two-sided markets. In a seminal article published in 1983, Stanford law-and-economics scholar William Baxter, then serving as Assistant Attorney General at the Antitrust Division, explained the two-sided nature of credit-card markets. *See* William F. Baxter, *Bank Interchange of Transactional Paper: Legal and Economic Perspectives*, 26 J.L. & Econ. 541 (1983), *available at* http://www.stern.nyu.edu/networks/phdcourse/Baxter_Bank_interchange_of_transactional_paper.pdf.[7] Since

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[7] Within the oral history of the Stanford economics department in the 1970s, the *amici* credit Professor James Rosse with first explaining to each of them (as his former students) the two-sided nature of the demand for newspapers. Rosse explained that, in an antitrust case in or before 1973, he had testified in defense of a newspaper that would not allow its paperboys [*sic*] to raise the price of the papers they sold due to the two-sided character of demand in the market – the newspaper cared about circulation for the sake of ad revenues in a way that the distributors did not. By 1979, one of the *amici* developed a formal model of network interconnection expanding upon the following proposition:

> [N]etwork externalities and interconnection are basic features of networks that create special complexities in the analyses of prices for network access – both that of final consumers and that of vendors of network services (henceforth called technical network access). These complexities, their interactions, and the consequent

the early 2000s, others (including Nobel laureate Jean Tirole) have expanded that literature.[8] Economists

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lessons for public interest network access prices are the focus of this paper.

Robert D. Willig, *The Theory of Network Access Pricing*, *in* Issues in Public Utility Regulation 109, 110 (MSU Public Utilities Papers, H.M. Trebing ed. 1979).

By the mid-1990s, when governments were debating how telecommunications network operators would be permitted to recover the costs of building and operating interactive broadband networks, economists influenced by the insights of Baxter and Rosse made similar arguments about the importance of two-sided platform demand for pricing that would maximize economic welfare. *See, e.g.*, Robert W. Crandall & J. Gregory Sidak, *Competition and Regulatory Policies for Interactive Broadband Networks*, 68 S. Cal. L. Rev. 1203, 1219-20 (1995) (paper commissioned by the Canadian Bureau of Competition) ("[T]he interests of advertisers are closely aligned with those of consumers of programming. . . . This commonality of interests arises from the fact that . . . the demand for interactive broadband services . . . is the vertical summation of two demand curves: the viewers' demand for programming and the advertisers' demand for audiences. As in the case of any multiproduct firm, the provider of interactive broadband services will likely have common fixed costs of production that are high relative to the incremental costs of programming or infrastructure deployment. Those common fixed costs are optimally distributed in inverse relation to the elasticity of demand. Access charges and usage charges can be borne either by the advertiser or the subscriber. If, however, the advertiser has the more price-inelastic demand, it is optimal from the perspective of economic efficiency for the advertiser to bear the disproportionate share of those costs.").

[8] *See, e.g.*, David S. Evans, *The Antitrust Economics of Multi-Sided Platform Markets*, 20 Yale J. on Reg. 325 (2003); Rochet & Tirole, *Two-Sided Markets: A Progress Report*, *supra* note 6; Roberto Roson, *Two-Sided Markets: A Tentative Survey*, 4 Rev. Network Econ. 142 (2005); Mark Armstrong, *Competition in Two-Sided Markets*, 37 RAND J. Econ. 668 (2006); Andrei Hagiu, *Two-Sided Platforms: Product Variety and Pricing Structures*, 18 J.

now widely embrace the definition of Tirole and Jean-Charles Rochet that a multi-sided market is a market "in which one or several platforms enable interactions between end-users and try to get the two (or multiple) sides 'on board' by appropriately charging each side." Rochet & Tirole, *Two-Sided Markets: A Progress Report*, *supra* note 6, at 645.[9] Antitrust scholars have

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Econ. & Mgmt. Strategy 1011 (2009); Sujit Chakravorti & Roberto Roson, *Platform Competition in Two-Sided Markets: The Case of Payment Networks*, 5 Rev. Network Econ. 118 (2006); Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-Sided Markets*, 1 J. Eur. Econ. Ass'n 990, 990-91 (2003); Marc Rysman, *The Economics of Two-Sided Markets*, 23 J. Econ. Persp. 125, 125-27 (2009).

[9] Rochet and Tirole clarify that a market is two-sided only if the volume of transactions between the end users on each side of the platform depends on the allocation of the aggregate price – the sum of the price that the platform charges each side. Rochet & Tirole, *Two-Sided Markets: A Progress Report*, *supra* note 6, at 648. When the Nobel Prize committee explained its reasons for honoring Tirole in 2014, it mentioned the newspaper example, much in the form that Rosse first explained the concept to the *amici* in the 1970s:

> [A]dvertisers might desire that there be many viewers or readers, whereas viewers and readers often prefer that there be few advertisers. As a result, prices that would be clearly anti-competitive in a one-sided market can be highly competitive in a two-sided market. For example, offering newspapers for free would be a sign of predatory pricing if the newspaper's only source of revenue came from readers, but may be entirely consistent with competitive pricing if advertising revenues are important. Because conventional tests for anti-competitive behavior are not applicable in platform markets, the work by Rochet and Tirole (2003) has had an immediate impact on competition policy (see Evans, 2009).

further applied the economic principles of two-sided markets to a variety of cases and regulatory policies.[10]

Scientific Background on the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2014, Jean Tirole: Market Power and Regulation, compiled by the Economic Sciences Prize Committee of the Royal Swedish Academy of Sciences 28 (Oct. 13, 2014), *available at* https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2014/advanced-economicsciences2014.pdf (citing Rochet & Tirole, *Platform Competition in Two-Sided Markets*, *supra* note 4; David Evans, *Background Note*, *in* OECD, Policy Roundtables: Two-Sided Markets 23, DAF/COMP(2009)20).

The Nobel Prize committee also specifically mentioned the relevance of Tirole's work to understanding the two-sided character of credit-card networks:

> A concrete example of a two-sided market is given by credit-card networks (such as Visa, Mastercard, or American Express). The two sides of the market are the consumers and the retailers. If a certain credit-card company charges retailers a high transactions fee, a retailer might decide to not accept this card. This might, however, lead consumers who prefer this card to shop elsewhere. On the other hand, there is a positive feedback loop between merchant acceptance and consumer usage. In a pioneering article, Rochet and Tirole (2003) analyzed the equilibrium of this kind of two-sided market, and studied its welfare properties. The model was generalized in Rochet and Tirole (2006). Key questions addressed in these articles include the equilibrium pricing structure, and the extent to which consumers and retailers use more than one network ("multi-homing").

Id. at 27-28 (citing Rochet & Tirole, *Platform Competition in Two-Sided Markets*, *supra* note 4; Rochet & Tirole, *Two-Sided Markets: A Progress Report*, *supra* note 6).

[10] *See, e.g.*, Bryan Keating & Robert D. Willig, *Unilateral Effects*, *in* 1 The Oxford Handbook of International Antitrust Economics 466 (Roger D. Blair & D. Daniel Sokol eds., Oxford Univ. Press 2014); Lapo Filistrucchi, Tobias J. Klein & Thomas O. Michielsen, *Assessing Unilateral Merger Effects in a Two-Sided*

II. The Relevant Market Includes Both Sides of the Credit-Card Platform.

When defining the relevant product market, a court identifies the "products that have reasonable interchangeability" from the perspective of the relevant consumers of the defendant's product. *United States v. E.I. du Pont de Nemours & Co.*, 351 U.S. 377, 404 (1956). The purpose of the market-definition inquiry is "to identify the market participants and competitive pressures that restrain an individual firm's ability to raise prices or restrict output." *Geneva Pharm. Tech. Corp. v. Barr Labs. Inc.*, 386 F.3d 485, 496 (2d Cir. 2004); *see also* U.S. Department of Justice & Federal Trade Commission, Horizontal Merger Guidelines § 4 (2010).

In this case, the District Court said that it "must account for the two-sided features of the credit card industry. . . ." *Amex I*, 88

Market: An Application to the Dutch Daily Newspaper Market, 8 J. Competition L. & Econ. 297 (2012); Robert H. Bork & J. Gregory Sidak, *What Does the Chicago School Teach About Internet Search and the Antitrust Treatment of Google?*, 8 J. Competition L. & Econ. 663 (2012); Daniel F. Spulber, *Solving the Circular Conundrum: Communication and Coordination in Internet Markets*, 104 Nw. U. L. Rev. 537 (2010); David S. Evans & Richard Schmalensee, *Industrial Organization of Markets with Two-Sided Platforms*, 3 Competition Pol'y Int'l 150, 152 (2007); J. Gregory Sidak, *A Consumer-Welfare Approach to Network Neutrality Regulation of the Internet*, 2 J. Competition L. & Econ. 349 (2006); Hagiu, *Two-Sided Platforms: Product Variety and Pricing Structures*, *supra* note 8; David S. Evans & Michael Noel, *Defining Antitrust Markets When Firms Operate Two-Sided Platforms*, 2005 Colum. Bus. L. Rev. 667.

F. Supp. 3d at 174. That statement is correct as a matter of economics. However, the District Court then defined the relevant product market to be the market for "general purpose credit and charge card network services" *offered to merchants* – a market in which Visa, MasterCard, American Express, and Discover compete. *Id.* at 170, 172. It said that accounting for both the merchant side and cardholder side of the market would "take[ ] the concept of two-sidedness too far." *Id.* at 172. The District Court added that, because "the customer neither sees nor pays the additional cost when networks increase the price of network services to merchants (other than in the form of higher retail prices, which are paid by all consumers) . . . the customer cannot be expected to initiate substitution in the first instance." *Id.* at 177. It thus concluded that, "[n]otwithstanding the two-sidedness of the credit card industry, . . . the court finds inadequate cause to depart from . . . defin[ing] the relevant market by reference to network services, rather than transactions." *Id.* at 175.

As the Second Circuit correctly concluded, the District Court's definition of the relevant market was not economically sound. *Amex II*, 838 F.3d at 196-200. Because a change in demand or cost on one side of a two-sided market affects the level and relationship of prices on all sides of the market, one must account for both sides of a two-sided market when defining a relevant market.[11] The Second Circuit reasoned that

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[11] *See* Evans, *The Antitrust Economics of Multi-Sided Platform Markets*, *supra* note 8, at 355; Rochet & Tirole, *Two-Sided*

correct application of the hypothetical monopolist test (HMT) in a two-sided market requires a court to determine whether a hypothetical profit-maximizing monopolist could profitably implement "a small but significant and non-transitory increase in price ('SSNIP')" on one side of the market, while accounting for the SSNIP's indirect impact on the other side of the market. *Id.* at 199-200.[12]

In contrast, the District Court presumed that any decrease in the quantity of network services that merchants demanded in response to a SSNIP would not be

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Markets: A Progress Report, *supra* note 6, at 648, 664-65; Filistrucchi, Klein & Michielsen, *supra* note 10, at 301-02.

[12] This case presents a "Cellophane fallacy" scenario, since the challenged practice by American Express is already in place. *See, e.g.*, Richard A. Posner, Antitrust Law 150-51 (2d ed. 2001) (explaining the Cellophane fallacy in market definition). One reaches different inferences about consumer substitution depending on where along the demand curve one evaluates the own-price elasticity of demand. The Cellophane fallacy arises if one evaluates consumer substitutes at the price associated with the challenged practice instead of the price absent that practice. If the challenged practice causes price to rise, then consumers will consider a wider range of possible substitutes for the defendant's product than they will at the price absent the practice. The economic fallacy inherent in that analysis is that the higher price makes the product of the firm imposing the challenged practice appear to be more price-constrained by substitute products than it would be at a lower price. So, in this case, the HMT test should not be predicated on a SSNIP applied to the current situation, with the challenged practice in place. Perhaps a court should apply a SSNIP in a hypothetical but-for world without the NDPs. Or, alternatively, the court could start from the real world and do a reverse SSNIP, which would ask what effect a small but significant and nontransitory *decrease* in the current price would have on demand.

large enough to render the price increase unprofitable. *Amex I*, 88 F. Supp. 3d at 179. However, it failed to consider the potential change in *cardholder* demand that the decreased merchant demand would stimulate. As the Second Circuit said, "[a] proper application of the HMT . . . would not have merely assumed that a decrease in quantity of network services demanded by merchants facing a SSNIP would be too small to render the accompanying price increase unprofitable." *Amex II*, 838 F.3d at 199-200. The proper analysis instead would have examined "the extent to which even a low level of merchant attrition might cause some cardholders to switch to alternative forms of payment." *Id.* at 200. Any cardholder attrition would generate "a feedback effect on merchant demand (and thus influence[ ] the price charged to merchants)." *Id.* Hence, the Second Circuit concluded, the district court had erred by "excluding the market for cardholders from [the] relevant market definition." *Id.* at 197. This conclusion rests on sound economic reasoning.

This Court's decision in *Eastman Kodak Co. v. Image Tech. Servs., Inc.*, 504 U.S. 451 (1992), is consistent with this economic understanding of two-sided platforms. *Kodak* involved the relationship between copiers and after-market parts and service, which the Court considered to be two products that can be, and often are, sold separately and at different times. *See id.* at 475-76 ("[I]t makes little sense to assume, in the absence of any evidentiary support, that equipment-purchasing decisions are based on an accurate assessment of the total cost of equipment, service, and parts

over the lifetime of the machine."). The Court nevertheless recognized that, if there were sufficient economic interrelatedness between pricing and demand in the after-market and the fore-market segments, then it would be appropriate to characterize the market as a single, unified market – which economists call a "total systems" market or a market in which competitive interaction is characterized by "systems rivalry."[13] In such a market, actions that might appear to be anticompetitive in one segment might promote competition in the other segment and therefore would not "run afoul of the antitrust laws." *Id.* at 478-79. Indeed, the Court expressly acknowledged that "[i]t may be that [Kodak's] parts, service, and equipment are components of one unified market, or that the equipment market does discipline the aftermarkets so that all three are priced competitively overall, or that any anticompetitive effects of Kodak's behavior are outweighed by its competitive effects," but the Court held that it could not draw those conclusions as a matter of law on summary judgment. *Id.* at 486.

This case is different. Here, the trial record amply demonstrated that the credit-card market is genuinely two-sided, with strong economic interrelatedness between the cardholder and the merchant sides of the market. Thus, this case is the converse of *Kodak*: the total systems – here, the rival credit-card network

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[13] *See, e.g.*, Janusz A. Ordover & Robert D. Willig, *An Economic Definition of Predation: Pricing and Product Innovation*, 91 Yale L.J. 8 (1981); J. Gregory Sidak, *Debunking Predatory Innovation*, 83 Colum. L. Rev. 1121 (1983).

platforms – are the participants in the relevant market for the total output created by those platforms, output that requires and affects the welfare of both cardholders and merchants.

By properly recognizing *Kodak*'s relevance on the matter of interrelatedness between the cardholder and the merchant sides of the market, the Court can use this case to clarify how to conduct competitive analysis of challenged practices in two-sided markets. When defining a relevant market, proper application of the HMT must capture the effects that a SSNIP would have on both sides of a two-sided market. A one-sided HMT in a two-sided market ignores the hypothetical monopolist's *total* or *net* price and therefore distorts the analysis of the effect that a SSNIP would have on a hypothetical monopolist's profits. Suppose that it would be profitable for a hypothetical monopolist of all credit cards to raise merchant fees by 5 or 10 percent of the current fees (or of the but-for fees), taking cardholder reactions into account. Even in this example, one could not conclude that the NDPs are anticompetitive in view of the harm to cardholders from their abolition. Consequently, a one-sided HMT is inadequate to characterize whether or not a market is two-sided.

Moreover, it may not be necessary to perform the HMT in the context of the two-sided platform here at all. The HMT is certainly the right tool to determine whether debit cards or cash or checks or Bitcoins compete with credit cards, as in a merger analysis or even in a predation analysis. But why does the HMT inform the issue raised by the District Court in this case –

whether the market is two-sided enough to necessitate taking the cardholder impact into account? Indeed, the HMT may be analytically superfluous to the characterization of two-sided markets such as at issue here. Consistent with the economic understanding of two-sided markets as articulated by Rochet and Tirole and by the Second Circuit's analysis, the assessment of conduct in a two-sided market straightforwardly asks whether the challenged practice harms competition in its total effects on both sides of the market, taking both sides as well as their interactions into account. *Amex II*, 838 F.3d at 199-200.

Thus, the market-characterization inquiry distills to the strength and degree of the links between the two sides of the platform: If the two sides are only weakly related, then the analysis will show that the impacts of a challenged practice on the directly affected side of the market will predominate. However, if the two sides are inextricably linked, as are the merchant and cardholder roles in credit-card networks, then it is doubtful that the District Court's superficially-direct-effects approach tells the relevant story, and defining the market to ignore, as it did, the two-sided effects may lead incorrectly to an economically harmful conclusion.

The assertion advanced by certain *amici* that courts are not competent to undertake this straightforward analysis to identify two-sided platforms thus

lacks credibility.[14] Two-sided platforms have highly visible and readily identifiable attributes, which this case illustrates. For instance, here two discrete groups of customers – merchants and consumers – interact to create a single unit of output: a credit-card transaction. The volume of the output that the two sides create depends directly on the allocation as well as the level of the aggregate price that American Express charges the two sides.

In short, the antitrust analysis of practices in a two-sided market cannot validly ignore one of the sides, and the correct two-sided-market analysis might or might not yield the same conclusion as would an invalid one-sided analysis.

III. Petitioners Needed but Failed to Prove That NDPs Have an Anticompetitive Effect Across the Totality of the Two-Sided Credit-Card Platform.

The Second Circuit correctly found that the District Court's "erroneous market definition" distorted its assessment of the net competitive effect that American Express's NDPs had on the relevant market. *Amex II*, 838 F.3d at 204. Although the District Court acknowledged that there was no evidence that the NDPs resulted in "higher two-sided price[s]," it found that Petitioners produced sufficient circumstantial

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[14] Brief for *Amici Curiae* 28 Professors of Antitrust Law as *Amici Curiae* Supporting Petitioners at 28-31 (Dec. 14, 2017) (No. 16-1454) [hereinafter 28 Professors' Br.].

evidence "to support the conclusion that the NDPs had anticompetitive effects on the market as a whole." *Id.* (quoting *Amex I*, 88 F. Supp. 3d at 215). The District Court found that the NDPs suppressed price competition on the merchant side of the market, and it found such evidence sufficient to satisfy Petitioners' initial burden to demonstrate anticompetitive effects in the relevant market. *Amex I*, 88 F. Supp. 3d at 215. However, as the Second Circuit observed, the correct analysis would focus on the NDPs' competitive effect in the relevant (two-sided) market as a whole, and not on price competition in only a subset of the relevant market (namely, the merchant side of the market). *Amex II*, 838 F.3d at 204-05.

Petitioners successfully argued in the District Court that, "[w]ith the NDPs in place, merchants lack any meaningful means of controlling their consumption of network services in response to changes in price. . . ." *Amex I*, 88 F. Supp. 3d at 207. In Petitioners' view, the NDPs prevented merchants from influencing their customers' payment choices, which allegedly diminished the incentive of American Express's competitors, Visa and MasterCard, to offer merchants lower discount fees. *Id.* at 207-08. Petitioners argued that, by decreasing the incentive for American Express and its competitors to compete by offering merchants a lower price, the use of NDPs decreased competition in the market for payment-card network services. *Id.* at 212. The District Court found that "[p]roof of anticompetitive harm to merchants, the primary consumers of

American Express's network services, is sufficient to discharge Plaintiffs' burden in this case." *Id.* at 208.

The Second Circuit correctly disagreed. From an economic perspective, NDPs might provide an important tool to foster interbrand competition among credit-card networks. As the Second Circuit observed, American Express could not have supplied its cardholders with the optimal level of cardholder benefits if merchants could discriminate by steering American Express's cardholders at the critical point of sale to a different form of payment. *Amex II*, 838 F.3d at 205-06. Merchant steering would reduce American Express's revenue from merchant discount fees, which American Express used to fund enhanced benefits to its cardholders. The Second Circuit observed that "[a] reduction in revenue that Amex earns from merchant fees may decrease the optimal level of cardholder benefits, which in turn may reduce the intensity of competition among payment-card networks on the cardholder side of the market." *Id.* at 205. Thus, the use of NDPs could actually *increase* competition among credit-card networks. The history of the NDPs' use suggests that, in fact, American Express executed those agreements with merchants to be able to compete more forcefully with other credit-card networks. *Id.* at 190-91.

It also bears emphasis that an NDP does not eliminate the incentives of rival credit-card networks to offer competitive lower prices to merchants. Even with an NDP in place, a credit-card network may offer its merchants a lower fee than its competitors do. The argument that NDPs undermine credit-card networks'

incentives to offer low merchant fees ignores the salient fact that a merchant might demur from acceptance of that card if the network charges fees that are too high. It is already the case that roughly one-third of merchants that accept credit cards refuse to accept American Express. *Id.* at 190. The probative significance of this fact for the proper evaluation of competitive effects in this case cannot be overstated, for it confirms that a merchant can switch from American Express's network to an acceptable alternative credit-card network if the merchant believes that American Express is charging excessive merchant fees. Because lower merchant acceptance of a network's card will decrease that card's appeal to cardholders, even with NDPs in place, credit-card networks have the incentive to offer competitive merchant fees.

Furthermore, even if one assumes that NDPs do decrease the credit-card networks' incentives to compete on the basis of price on the merchant side of the market, that evidence is insufficient to prove anticompetitive effects in the two-sided relevant market as a whole. A company might compete with its rivals on the basis of price, quality, or both. Antitrust law should not compel a firm to compete equally across every dimension of market rivalry. For example, the mere fact that a company unilaterally decides to compete with its rivals primarily on the basis of quality, rather than price, does not mean that consumer and economic welfare are diminished, and a legal policy to preclude such a choice of strategy would assuredly be harmful to consumer welfare. In a two-sided market, it is essential for

legal policy to allow competing providers to exercise their own unilateral judgments about what mixture of prices and terms to offer the customers on the two sides, because only competitive determination of such mixture or variety of mixtures can most reliably arrive at market outcomes that maximize output and best serve economic welfare.

In addition, Petitioners provided no valid economic justification for assuming that increased merchant fees resulted from decreased market competition. From an economic perspective, increased cardholder benefits are equivalent to decreased prices on the cardholder side of this two-sided market. Holding a platform's aggregate price constant, a decrease in the price for cardholders will by definition require an increase in price for merchants. Thus, evidence of increased merchant fees in itself yields inconclusive information about competition in the two-sided market for credit-card networks.

The aggregate price charged to both sides of the market, together with its optimal allocation between the two sides, is what drives total output in the credit-card industry. Thus, one must recognize the welfare gains on the cardholder side of the market alongside possible welfare losses (if any) on the merchant side of the market, so as to determine the effect of the NDPs in the relevant market as a whole. By entirely excluding one side of the two-sided market from its relevant product market, the District Court never could have analyzed correctly the NDPs' competitive effects in the market for credit-card networks. A valid economic

analysis of the NDPs' competitive effects would have been two-sided, accounting for both the effects on network services to merchants and the effects on credit-card services to cardholders.

Some *amici*, invoking an analogy to the *per se* treatment of horizontal price-fixing agreements, contend that this Court should not account for the procompetitive benefits across the entire credit-card platform. 28 Professors' Br. at 25. Their analogy is false and relies on incorrect economic reasoning. Unlike horizontal price fixing, which typically reduces consumer welfare, two-sided platforms of the sort at issue here are vertical in nature and have procompetitive attributes that this Court has said must be recognized. *See, e.g.*, *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 907 (2007) ("Vertical price restraints are to be judged according to the rule of reason."); *id.* at 882 ("Respected economic analysts . . . conclude that vertical price restraints can have procompetitive effects."); *see also* Frank H. Easterbrook, *Vertical Arrangements and the Rule of Reason*, 53 Antitrust L.J. 135, 157-58 (1984) ("[T]he rule of reason's application to vertical arrangements should err on the side of tolerance" because "[m]ost vertical arrangements are procompetitive.").

Even if this Court were to characterize the NDPs as horizontal restraints, they are plainly necessary (due to the two-sided nature of the market) for American Express's ability to offer differentiated products in the credit-card network market to both merchants and consumers. Therefore, if viewed as horizontal

restraints, the NDPs are properly analogized to blanket licenses or territorial exclusives that enable the creation of new and differentiated products that enhance consumer welfare. Such restraints are not subjected to *per se* analysis. *See, e.g.*, *Broadcast Music, Inc. v. Columbia Broadcasting Sys., Inc.*, 441 U.S. 1, 9-10 (1979); *Rothery Storage & Van Co. v. Atlas Van Lines*, 792 F.2d 210, 211-12, 221-23 (D.C. Cir. 1986) (Bork, J.).

IV. Some *Amici* Supporting Petitioners Wrongly Condemn the Second Circuit's Assignment of Burden.

Some *amici* supporting Petitioners contend that the Second Circuit "depar[ted] sharply from prior antitrust analyses" by holding that it was Petitioners' "burden to show that the Amex Restraints had an adverse net effect" on competition.[15] These *amici* are wrong. The Second Circuit correctly allocated the burden of proof under the rule of reason.

As the Second Circuit explained (and as Petitioners agree), courts applying the rule of reason typically employ a "three-step burden-shifting framework." *Amex II*, 838 F.3d at 194; *see also King Drug Co. of*

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[15] Brief for *Amici Curiae* John M. Connor, Martin Gaynor, Daniel McFadden, Roger Noll, Jeffrey M. Perloff, Joseph A. Stiglitz, Lawrence J. White, and Ralph A. Winter in Support of Petitioners at 5, 13 (Dec. 14, 2017) (No. 16-1454); *see also* Brief for *Amici Curiae* John M. Connor, Martin Gaynor, Daniel McFadden, Roger Noll, Jeffrey M. Perloff, Joseph A. Stiglitz, Lawrence J. White, and Ralph A. Winter in Support of Petitioners at 2, 8 (July 6, 2017) (No. 16-1454).

Florence, Inc. v. Smithkline Beecham Corp., 791 F.3d 388, 412 (3d Cir. 2015); *K.M.B. Warehouse Distrib., Inc. v. Walker Mfg. Co.*, 61 F.3d 123, 127 (2d Cir. 1995); *Bhan v. NME Hosps.*, 929 F.2d 1404, 1413 (9th Cir. 1991). The plaintiff bears the initial burden of showing that the challenged agreement has an anticompetitive effect in the relevant market. *See, e.g., Deutscher Tennis Bund v. ATP Tour, Inc.*, 610 F.3d 820, 830 (3d Cir. 2010); *United States v. Brown Univ.*, 5 F.3d 658, 668 (3d Cir. 1993); *Nat'l Hockey League Players' Ass'n v. Plymouth Whalers Hockey Club*, 325 F.3d 712, 718 (6th Cir. 2003); *Tanaka v. Univ. of S. Cal.*, 252 F.3d 1059, 1063 (9th Cir. 2001); *Retina Assocs., P.A. v. S. Baptist Hosp. of Fl., Inc.*, 105 F.3d 1376, 1381-82 (11th Cir. 1997); *Capital Imaging Assocs., P.C. v. Mohawk Valley Med. Assocs., Inc.*, 996 F.2d 537, 543 (2d Cir. 1993). If the plaintiff carries that burden, the burden shifts to the defendant to present procompetitive justifications for the challenged practice. *See, e.g., Bhan*, 929 F.2d at 1413. If the defendant carries that burden, the burden then reverts to the plaintiff to show either that the challenged practice is unnecessary to achieve those procompetitive effects or that the defendant can achieve the same procompetitive effects by less restrictive means. *Id.*; *Amex II*, 838 F.3d at 194-95. Only if the plaintiff carries its burden in the third step can the plaintiff possibly prevail. *Bhan*, 929 F.2d at 1413.

To carry their initial burden in this case, Petitioners needed to demonstrate that American Express's NDPs had an anticompetitive effect in the relevant two-sided market. However, as explained above,

Petitioners failed to carry that burden. Because Petitioners incorrectly defined the relevant market, they failed to analyze correctly the competitive pressures that constrain the ability of a credit-card platform like American Express to increase prices or restrict output. Consequently, Petitioners never proved that American Express's NDPs decreased competition in the market for credit-card networks. Because Petitioners provided no evidence of anticompetitive effects in the market for credit-card networks, it would be legal error to shift the burden to American Express to justify its business conduct.

Contrary to the arguments of the *amici* economists supporting Petitioners, the Second Circuit's finding was faithful to the lower federal courts' three-step burden-shifting framework under the rule of reason. Only if Petitioners had shown that the NDPs had an anticompetitive effect in the relevant market would the burden of proof have properly shifted to American Express to show a procompetitive justification for those restrictions. The two-sided nature of the credit-card platform should not be wrongly characterized to excuse Petitioners from their evidentiary obligation under the rule of reason to justify the shifting to American Express of the burden of proof regarding the benefits of its challenged business practice.

Again, *Kodak* is instructive. If a systems market is found to be the relevant market, due to consumers' reliance on the total cost of ownership in making their systems choices, there is no burden shift between a finding of foreclosure of competition in an aftermarket

and any positive effects in the total systems market. Instead, if the characterization analysis finds a systems market, then the plaintiff must carry the burden of showing anticompetitive effects in that systems market, not merely in a particular stage or segment of it.

This Court said in *Kodak* that, to the extent a firm's products are so interrelated that consumers make their purchasing choices based upon the total cost of the "system," the products may be understood to be "components of one unified market. . . ." *Kodak*, 504 U.S. at 478-79, 486. And, when the relevant market for antitrust purposes is a unified systems market, the positive total effects of the firm's challenged practice may be dispositive at the outset. This Court acknowledged that, to the extent a total systems market exists, a pricing strategy that limits competition in an aftermarket component but has an overall positive effect on the total systems market does not "run afoul of the antitrust laws." *Id.* at 478-79. The Court in *Kodak* concluded:

> In the end, of course, Kodak's arguments may prove to be correct. It may be that its parts, service, and equipment are components of one unified market, or that the equipment market does discipline the aftermarkets so that all three are priced competitively overall, or that any anticompetitive effects of Kodak's behavior are outweighed by its competitive effects. But we cannot reach these conclusions as a matter of law on a record this sparse.

> Accordingly, the judgment of the Court of Appeals denying summary judgment is affirmed.

Id. at 486. The Second Circuit's analysis of the relevant market in this case relied on a full trial record rather than the necessarily sparser record available when the summary judgment order in *Kodak* was appealed to this Court. Equipped with that fuller record, the Second Circuit's decision flows logically from this Court's discussion of unified markets in *Kodak*. Simply put, where the components of a market are inextricably linked (as is the case between the two sides of the market for credit-card networks, but was not found on summary judgment to be the case with respect to the components of Kodak's purported total systems market), it is necessary to account for the effects of a firm's behavior on the interconnected market as a whole. The District Court erred by refusing to account for the effects of American Express's NDPs on both sides of the two-sided market for credit-card networks. In reversing, the Second Circuit properly applied longstanding antitrust principles with an appropriate understanding of the realities of this inherently interconnected market.

CONCLUSION

For the foregoing reasons, this Court should affirm the Second Circuit's decision and endorse its reasoning.

Respectfully submitted,

ROBERT M. LANGER*
AARON S. BAYER
BENJAMIN H. DIESSEL
JENNIFER A. MCTIERNAN
WIGGIN AND DANA LLP
20 Church Street
Hartford, CT 06103
(860) 297-3700
rlanger@wiggin.com
**Counsel of Record*

Counsel for Amici Curiae

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